



# Lebensohn honored by The Minerals, Metals & Materials Society

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## Pioneer in multiscale modeling of materials

Ricardo Lebensohn is the recipient of the 2019 Distinguished Scientist/Engineer Award from The Minerals, Metals and Materials Society's (TMS) Structural Materials Division.

TMS cited Lebensohn "for pioneering work in the field of multiscale modeling of materials and its connection with the characterization of microstructure by x-ray diffraction."

Lebensohn said the honor of "being recognized by our flagship materials society and joining the list of such prestigious past recipients" gives him a burst of strength in his career as he pursues scientific progress.

## About Lebensohn

In work that supports the Laboratory's Materials for the Future science pillar, Lebensohn is developing new techniques to model materials at the mesoscale. Future light sources such as the Lab's proposed MaRIE facility would enable in-situ 3D characterization as materials are processed and/or dynamically deformed, and the use of such data to inform and refine predictive models

In the next years, Lebensohn's intention is to further advance both theoretical and numerical tools to complement emerging and future mesoscale experiments of material behavior. The work will enable practical applications to scientific and technological challenges, inside and outside the Laboratory.

Lebensohn received his doctorate in Physics from National University of Rosario (UNR, Argentina), and joined the Laboratory in 2003.

His work on modeling of mechanical behavior of polycrystalline materials is highly recognized and cited, and the resulting Viscoplastic Self-Consistent (VPSC) code has been widely distributed and used for academic and industrial applications to metals, minerals and polymers. More recently, he developed a spectral formulation for the prediction of micromechanical fields in polycrystalline materials using direct input from microstructural images. In 2010, he received the prestigious Germany's Humboldt Research Award "for pioneering work in the field of multiscale modeling of plasticity of crystalline materials."

## About the award

The 2019 TMS award recipients were recently recognized at the Society's Annual Meeting & Exhibition, held in San Antonio, Texas.

The Distinguished Scientist/Engineer Award presented by the Structural Materials Division recognizes those who have made a long-lasting contribution to the fundamental understanding of microstructure, properties and performance of structural materials for industrial applications.

The Minerals, Metals & Materials Society is a global network of materials scientists and engineers.

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